Michelson Fellowship Program Guide Lines

The Michelson Fellowship Program seeks to support the scientific community in becoming familiar with the tools and techniques of exo-planet research and related fields. Fellowship applications proposing technology development and/or astronomical applications of optical/IR interferometry and/or coronagraphy are particularly encouraged; proposals relevant to the technology development or science of Navigator projects, both experimental and theoretical, will also be considered.

The program further sponsors a series of activities intended to increase and facilitate open exchange of information and ideas in the field through personal contacts of students, postdoctoral researchers, young faculty members and established researchers.

Graduate Student Fellowships

The purpose of the fellowship is to enable promising graduate students to pursue their research within a PhD program unencumbered by financial concerns.

Eligibility

Eligible are students in good standing at a university in the United States enrolled in a graduate program typically leading to a PhD in astronomy, physics or related discipline including engineering. The university or research institution shall have an established program in the field of the proposed research. An established program shall be defined as at least one faculty member who is engage through dedicated facilities or instruments, collaborations with existing projects or projects under development or significant contributions to the field. The intent of this requirement is to guarantee the student a rich and stimulating environment rather than restricting the field of eligible institutions.

Application Process

To be considered for a fellowship, the applicant must send a proposal to arrive before the application deadline to the program director at the address below. This proposal shall consist of the title of the proposal, an abstract not to exceed 200 words, the name of the host institution, the name of the faculty advisor at the host institution and a clear description of the research project. The proposal should also include a description how this research will relate to the already existing efforts at the proposed host institution. The proposal must not exceed **five** letter size (8.5 by 11 inch) or European A4 pages and the font size shall not be smaller than 12 points. These five pages must include the abstract, research description, and all figures, tables and references. Material in excess of the page limit will not be considered for the selection process. The Jet Propulsion Laboratory shall retain the right to publish funded proposals in electronic format and hardcopy within the context of promoting the fellowship program only. Additionally, a *curriculum vitae* (CV), including a list of publications if applicable must be included with the proposal. The curriculum vitae and the publication list together must not exceed **two pages**. A one-page cover letter may be added to the proposal.

The applicant must submit **five paper copies** of the proposal (optional cover letter, research proposal and curriculum vitae) preferably double sided and an electronic copy (**one file** in Postscript or PDF-Format) prior to the application deadline. The electronic copy of the research proposal shall be send by electronic mail to the address provided. No application shall be accepted without the timely receipt of the five paper copies of the proposal. The applicant must also arrange for a letter of reference and support from the faculty advisor at the proposed host institution to be sent prior to the deadline. The letter of support must confirm that the applicant is a student in good standing at the host institution or is accepted for enrollment and will be a registered student prior to the start of the funding period. The letter shall also describe the impression of the advisor of the suitability of the applicant to the task proposed and shall evaluate the likelihood for success of the applicant in respect to the proposed research project.

Selection Process

The selection of the applicants will be made by the Director of the fellowship program based on the recommendation of an independent review panel. The review panel shall consist of at least three members where not more than one member shall be affiliated with the Jet Propulsion Laboratory or the California Institute of Technology. The director of the fellowship program shall convene and facilitate the meeting of the review panel but will not vote on the recommendation of the review panel.

Contracts and Budgets

Following selection, the Jet Propulsion Laboratory shall write a University Subcontract with the host institution to support the successful applicant for the duration of the fellowship. The fellowship will cover three years of graduate research of the successful applicant including tuition at the host institution, a student stipend at a rate compatible with the graduate research stipends of the National Science Foundation (NSF), and an annual research budget not to exceed \$7,000 per year (for fellowships selected in FY2003) to cover research related expenses such as but not limited to travel, page charges, small equipment and computers. The fellowship shall also provide funds for appropriate health and dental coverage for the fellow and applicable overhead charges.

The research budget may be phased to cover the purchase of more expensive equipment at the beginning of the funding period as long as the total of the expense does not exceed the sum of the annual allocations. With the approval of the fellowship director personal computer and equipment that is considered to have reached the end of its useful lifetime at the end of the fellowship will not need to be returned to the funding agency.

Early Termination of Tenure

Should the student leave the host institution prior to the end of the funding period through graduation or other event the fellowship funding will end with the date at which the student is no longer enrolled at the host institution.

Change of Host Institution

As the interaction of the fellow with the faculty member at the host institution is an integral part of the proposal evaluation, the fellowship shall not be transferable to another institution or faculty advisor except under extraordinary circumstances such as transfer, illness or death of the faculty advisor. Should the faculty advisor during the funding period move to another institution it will be the fellows choice, to be approved by the director of the fellowship program, whether the fellow wants to remain at the initial host institution or wants to stay with the initial advisor at a new institution. The Jet Propulsion Laboratory shall write a new contract for the remaining funding period with the new host institution.

Postdoctoral Fellowships

The purpose of this fellowship is to enable recent PhD recipients to pursue independent research in the area of development and application of optical and infrared interferometry.

Eligibility

Eligible are applicants who have received a PhD in astronomy, physics or related discipline including engineering within the last six years. Also eligible are current PhD students who will have fulfilled all requirements to receive a PhD before the start of the funding period. The applicant must propose to conduct research at a university or research institution in the United States with an established program in the field of the proposed research. An established program shall be defined as at least one faculty member who is engage through dedicated facilities or instruments, collaborations with existing projects or projects under development or significant contributions to the field. The intent of this requirement is to guarantee the student a rich and stimulating environment rather than restricting the field of eligible institutions.

Application Process

To be considered for a fellowship, the applicant must send a proposal to arrive before the application deadline to the program director at the address below. This proposal shall consist of the title of the proposal, an abstract not to exceed 200 words, the name of the proposed host institution, the name of a faculty member of the host institution who has agreed to serve as faculty contact and a clear description of the research project. The proposal should also include a description how this research will relate to the already existing efforts at the proposed host institution. The proposal shall not exceed **eight** letter size (8.5 by 11 inch) or European A4 pages and the font size shall not be smaller than 12 points. These eight pages have to include the abstract, research description, and all figures, tables and references. Material in excess of the page limit will not be considered for the selection process. The Jet Propulsion Laboratory shall retain the right to publish funded proposals in electronic format and hardcopy within the context of promoting the fellowship program only. Additionally, a *curriculum vitae* (CV), including a list of publications must be included with the proposal. The curriculum vitae and the publication

list together shall not exceed **three** pages. A one-page cover letter may be added to the proposal.

The applicant must submit **five paper copies** of the proposal (optional cover letter, research proposal, curriculum vitae and publication list) preferably double sided and an electronic copy (**one file** in Postscript or PDF-Format) of the research proposal prior to the application deadline. The electronic copy of the research proposal shall be send by electronic mail to the address provided. No application shall be accepted without the timely receipt of the five paper copies of the proposal.

The applicant must also arrange for three letters of reference to be sent prior to the application deadline. One of the three letters of reference must be written by a member of the proposed host institution. This letter must state that the faculty agrees to serve as the faculty contact for the fellow should the proposal be selected for funding. The letter must further state that the faculty member supports the research as proposed, that the host institution will welcome the successful fellow and will provide support as required to complete the proposed research including access to required facilities. The letter should finally give an assessment of the likelihood for success of the applicant in respect to the proposed research project.

Selection Process

The selection of the applicants will be made by the Director of the fellowship program following and based on the recommendation of an independent review panel. The review panel shall consist of at least three members where not more than one member shall be affiliated with the Jet Propulsion Laboratory or the California Institute of Technology. The director of the fellowship program shall convene and facilitate the meeting of the review panel but will not vote in the recommendation of the review panel.

Contracts and Budgets

Following the selection, the Jet Propulsion Laboratory shall write a University Subcontract with the host institution to support the successful applicant for the duration of the fellowship. The fellowship will cover initially two years of postdoctoral research with an additional year of funding pending the review of a progress report before the end of the first two-year period. The fellowship will cover a research stipend at a rate of \$50,000 per year (for fellowship awarded in FY2003). The stipend shall also provide funds for appropriate health and dental coverage. In addition, the fellowship shall an annual research budget not to exceed \$15,000 per year (for fellowship awarded in FY2003) to cover research related expenses such as but not limited to travel, page charges, small equipment and computers. Finally the fellowship shall cover appropriate overhead charges.

The research budget may be phased to cover the purchase of more expensive equipment at the beginning of the funding period as long as the total of the expenses does not exceed the sum of the annual allocations. With the approval of the fellowship director personal computer and equipment that is considered to have reached the end of its useful lifetime at the end of the fellowship will not need to be returned to the funding agency.

Early Termination of Tenure

Should the selected fellow leave the host institution prior to the end of the funding period the fellowship funding shall end with the date at which the fellow is no longer associated with the host institution.

Change of Host Institution

As the interaction of the fellow with the faculty member at the host institution is an integral part of the proposal evaluation, the fellowship shall not be transferable to another institution or faculty advisor except under extraordinary circumstances such as transfer, illness or death of the faculty advisor. An exception shall be where more than one institution is named on the initial proposal. Should the fellow request to move to one of the other institutions named on the proposal this move should be approved with the concurrence of the initial faculty contact. If the new institution fulfills the selection requirements, with the approval of the fellowship director the Jet Propulsion Laboratory shall write a new contract for the remaining funding period with the new host institution.

Performance Review for Continued Funding.

Four months before the end of the initial two-year funding period, the fellow shall submit a report on the work accomplished to this point including a list of publications related to the research conducted. If the fellow request at this point continuing funding for one additional year for the end of the first two-year period, this request needs to be endorsed by the faculty contact at the host institution. Upon review of the report and the request for continued funding, the director of the fellowship program shall make a decision whether to grant the continuation no later than three months before the end of the initial two-year period. Continued funding shall only be denied, if the success of the proposed research appears to be in serious jeopardy and no equivalently valuable alternative results have been achieved or are likely to be completed or if no report is submitted in time.

Provisions Applicable to Graduate Student and Post-Doctoral Fellows

Acknowledgement of Funding

All publications that report on research results funded in part of completely under this fellowship program shall include the following acknowledgement: "This work was performed [in part] under contract with the Jet Propulsion Laboratory (JPL) funded by NASA through the Michelson Fellowship Program. JPL is managed for NASA by the California Institute of Technology.

Employment during Tenure

A fellow may not receive funds from another major fellowship, scholarship, assistantship or similar award. However, fellows are permitted to solicit and accept support from any appropriate source for research expenses connected with their fellowship activities. The program is not concerned with gifts or loans of any kind that a fellow may receive.

During the tenure of the fellowship (except for scheduled short vacation periods) fellows are expected to devote full time to the advancement of their research project. Employment at an on- or off-campus site that does not jeopardize a fellow's full-time commitment to the research project and is consistent with policies of the host institution is usually permitted. However, before a fellow engages in such work, permission of the Program Director must be obtained. Requests for approval of employment during tenure are reviewed on a case-by-case basis. Such requests should include the following information: nature of employment, relation to degree program or research project, number of hours per week or month, permission from the faculty contact or representative of the host institution.

Annual Reports

Every fellow must provide a brief report once per year on the accomplishments and experience during the previous year. This report will be requested by the program director and must be sent within 30 days of the request. All fellows are invited to send captioned photographs and information on noteworthy events or accomplishments at any time to the program director. The program director will make such material available to the public at his discretion. Also, comments and suggestions regarding the administration of the program are always welcome.

Contact Address

Please address all inquiries including fellowship applications directly to the program director:

Dr. Rolf Danner Jet Propulsion Laboratory California Institute of Technology 4800 Oak Grove Drive Pasadena, California 91109-8099

Phone: (818) 393 4877 Email: rolf.danner@jpl.nasa.gov